



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,811	10/20/2003	Takeshi Ono	2003_1458A	2618

513 7590 08/14/2006

WENDEROTH, LIND & PONACK, L.L.P.  
2033 K STREET N. W.  
SUITE 800  
WASHINGTON, DC 20006-1021

EXAMINER

WEINSTEIN, LEONARD J

ART UNIT	PAPER NUMBER
----------	--------------

3746

DATE MAILED: 08/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n No.

10/687,811

Applicant(s)

ONO ET AL.

Examiner

Leonard J. Weinstein

Art Unit

3746

-- The MAILING DATE of this communication appears on th cover sheet with the corresp ndenc address --

**Peri d f r Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10/687,811, filed on 10/20/2003.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the protrusion (106A) must be shown in figure 4, embodiment 2, or the feature(s) canceled from the claim(s). Further, although 106A is not specifically called out in figure 4 it appears that there are two protrusions on the external circumference facing away from the center of the claimed invention. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the

renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2, 4, 6, 7, 8, 9, 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 2 recites the limitation "said protrusion is formed integrally with the stopper by draw forming" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is suggested that claim 2 be amended to recite the definition of draw forming.

The term "integrally" in claim 2 is a relative term which renders the claim indefinite. The term "integrally formed" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary

skill in the art would not be reasonably apprised of the scope of the invention. The broad interpretation of this term does not clearly define a spatial, or material relationship between the "protrusion" and the "stopper" recited in claim 2.

6. The term "leading end" in claim 4 is a relative term which renders the claim indefinite. The term "leading end portion" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is suggested that claim 4 be amended to clearly state a reference point within the claimed in relation to the "leading end" of the protrusion that renders this claim acceptable.

7. The term "nearly" in claims 6, 7, 8, 9, 12 is a relative term, which renders the claim indefinite. The term "nearly vertical" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 2, 6, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al. US Patent No. 3,664,771, filed 2/3/1971. Suzuki et al. '771 discloses all the limitations of claim 1 including: a hermetic electrically driven compressor (Suzuki – Figure 1) comprising a compressor element (Suzuki – Figure 1, article 12) elastically supported in an enclosed container (Suzuki – Figure 1, article 3 and 4), a crankshaft provided with said compressor element (Suzuki – Figure 1, article 7), a motor element for driving said compressor element (Suzuki – Figure 1, article 2), and a cup-shaped stopper fixed to the inside of said enclosed container (Suzuki – Figure 1, article 16) having a protrusion at its inner circumferential side (Suzuki – Embodiment #2 – Figure 4) , wherein the end portion, opposite the side of the motor wherein the compressor unit is attached to said crankshaft, extends into said stopper (Suzuki – Figure 1 articles 7 and 16). It is commonly known within the art to place a hollow aperture on the inner circumference of a hermetically sealed compressor, so that it may receive the cylindrical end portion of the crankshaft, which is not connected to the compressing unit (comprised of a piston). It is also commonly known within the art to configure hermetically sealed compressors with the compression unit on the top or bottom of said unit and having said hollow aperture affixed to the inner surface that the end portion of said crankshaft, that is received by the hollow aperture, is nearest too. The length of said crankshaft is also perpendicular to the surface the hollow aperture is affixed to.

Suzuki et al. '771 discloses all the limitations of claims 2, and 6 including the hermetic electrically driven compressor of claim 1: wherein said protrusion is formed

integrally with the stopper (Suzuki – Embodiment #2 – Figure 4), said protrusion is formed in a groove shape along the vertical direction of the stopper inside (Suzuki – Embodiment #2 – Figure 4, article 117), and wherein said compressor element includes a compressor chamber (Suzuki – Figure 1, article 11) and a piston (Suzuki – Figure 1, article 12) moving reciprocally in the compressor chamber, and said protrusion is provided in a direction nearly vertical to the direction of reciprocal motion of the piston (Suzuki – Figure 1). Further Suzuki et al. '771 discloses all the limitations of claims 7 including the hermetic electrically driven compressor of claim 3, wherein said compressor element includes a compressor chamber (Suzuki – Figure 1, article 11) and a piston (Suzuki – Figure 1, article 12) moving reciprocally in the compressor chamber, and said protrusion is provided in a direction nearly vertical to the direction of reciprocal motion of the piston (Suzuki – Figure 1). Figures 1, 4, 5 of Suzuki et al. '771 are provided below.

FIG. 1

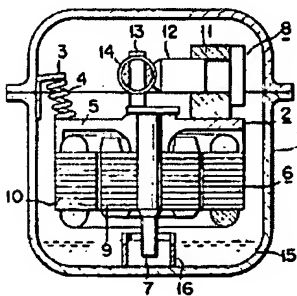


FIG. 4

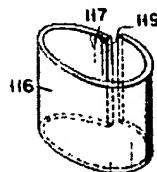
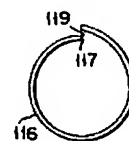


FIG. 5



***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 2, 6, 7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Suzuki et al. US Patent No.

3,664,771. Suzuki et al. US Patent No. 3,664,771 states on lines 35-40 of column 1:

"With a conventional compressor of such type wherein there is elastically supported in a sealing casing a compressor body consisting of a compressing unit and an electric motor, the lower end of the revolving shaft of the electric motor is made to abut against the inner wall of a cylindrical protector so disposed as to enclose said end, thereby preventing the compressor body from striking against the inner wall of the sealing casing upon its heavy shaking due to impacts being applied thereto."

Further Suzuki et al. '771 claims in claim 1:

"A hermetically sealed electric compressor comprising a casing; a compressing unit received in said casing and formed of a frame, an electric motor whose revolving shaft is rotatably fitted into the frame and a compressing unit driven by said motor; and a protector so disposed at the inner bottom of the casing as to surround the lower end of the revolving shaft in order to prevent the compressor body from striking against the inner wall of the casing, said protector being provided with at least one repulsing means for forcing back the revolving shaft making a processional movement in a reverse direction to the revolution of said shaft along the inner wall of the protector to an original position of the shaft."

The motivation for the claimed invention of Suzuki et al. '771 was to protect the casing of the sealed compressor from the movements of the cylinder that the motor rotated.

Since this issue would exist if the end of the cylinder were disposed towards the upper



surface of the casing, as in the claimed invention, it would have been obvious to one of ordinary skill in the art to apply Suzuki et al. '771, and thereby affixing the protector to the upper surface of the compressor's casing.

11. Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. US Patent No. 3,664,771 as applied in paragraphs 8 and 10 in further view of Park US Patent No. 6,422,833 B1 filed 11/3/2000. Suzuki et al. '771 as applied in paragraphs 8 and 10 above discloses all the limitations substantially as claimed except for the leading end portion being formed in a curvature. Park '833 teaches a crankshaft stopper, attached to upper inner circumference of the sealed casing, comprised of a movement restriction hole (Park – Figure 3B article 51). The inner wall of article 60, a “resonance reducer”, which extends from the outer wall, encircles the restriction hole and has a leading end portion formed in a curvature. Park '833 as applied to Suzuki et al. '771 would provide for a protector with a single protrusion on its inner circumference and formed in a curvature capable of obstructing the end portion of the crankshaft cylinder from hitting the inner surface of the casing. The motivation for this combination would be to provide a protrusion having a leading edge comprised of no sharps edges and thus reducing the possibility of damaging the portion of the crankshaft cylinder that comes into contact with said protrusion. Therefore it would have been obvious to one of ordinary skill in the art to apply Park '833 to Suzuki et al. '771. With regards to claim 8, both Park '833 and Suzuki et al. '771 teach a protrusion provided in a direction nearly vertical to the direction of reciprocal motion of the piston.

12. Claims 3, 5, 7, 9, 10, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. '771 as applied to Park '833 in paragraph 11 above in view of Garry US Patent No. 5,176,560 (filed 6/10/1991) and Chuang US Patent No. D436,997S (filed 4/4/2000). Suzuki et al. '771 as applied to Park '833 in paragraph 11 above do teach a protrusion formed along the vertical direction with a leading edge formed in a curvature of the claimed invention, however said protrusion is not in a groove shape. Garry '560 teaches a pen top with a multitude of vertical structural supports (Garry –Figure 4, article 8) that alter the path of a pen in the correct position within said pen top. Said structural supports also prevent the tip of the pen from impact directly with the top and prevent the tip of the pen from being damaged. These support guides can be formed in a multitude of ways, Chuang D '997S teaches a multitude of such guides as protrusions on the inner circumference of the pen top formed along the vertical direction, with a leading edge formed in a curvature, and spaces in between that form small channel-like grooves.

Suzuki et al. '771 as applied to Park '833 in paragraph 11 and combined with Garry '560 and Chuang US D '997S would include all the limitations of claims 3, 5, and 10, 11, all of which further limit the shape of the protrusion of the claimed invention in claim 1. With regards to claims 7, 9, and 12 both Park '833 and Suzuki et al. '771 teach a protrusion provided in a direction nearly vertical to the direction of reciprocal motion of the piston. Applying Garry '560 and Chuang US D '997S would do nothing to alter the direction in which the claimed stopper, in relation to the direction of motion of the

piston, was provided. Therefore it would have been obvious to one, of ordinary skill in the art, Suzuki et al. '771 as applied to Park '833 in paragraph 11 and combined with Garry '560 and Chuang US D '997S, in order to provide a protrusion in a groove shape that would deflect the end portion of said cylinder from impacting the inner surface of the sealed casing without the top of the cylinder being damage by a sharp leading edge.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and are cited on form 892 enclosed herewith.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard J. Weinstein whose telephone number is 571-272-9961. The examiner can normally be reached on Monday - Thursday 7:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on 571-272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



LJW



ANTHONY D. STASHICK  
PRIMARY EXAMINER